Note

First Records of the Sugarcane Pest, *Blastobasis graminea* Adamski (Lepidoptera: Coleophoridae: Blastobasinae), from Mexico and Central America

Although described only recently (Adamski 1999), Blastobasis graminea Adamski has been known as a pest of sugarcane (Saccharum officinarum Linnaeus; Poaceae) in Colombia and Venezuela for nearly 50 years (e.g., Box 1953, Guagliumi 1962). Cárdenas and Hernández (1988) described the biology of B. graminea in Colombia, and Adamski (1999) presented details of its morphology, along with illustrations of the adult, genitalia, larval chaetotaxy, and damage. Martorell (1976) reported two species of Blastobasinae feeding in flower heads of sorghum (Sorghum aethiopicum Hackel Ruprecht ex Stapf.; Poaceae) in the Virgin Islands, and it is possible that one of them represents B. gra*minea*. Unfortunately, these specimens are presumably lost.

During a survey of sugarcane fields in central Mexico in February 2001, specimens of B. graminea were collected in the states of Veracruz and Jalisco. In Jalisco (Autlán and Casimiro Castillo), larvae of B. graminea were collected from young stalks of sugarcane at ground level, while in Veracruz (La Gloria), adults were collected using light-traps and blacklight. We assume that both of these collections represent resident pest populations in the sugarcane fields from which they were collected. Coincidentally, specimens of B. graminea (larvae and adults) recently were sent to the Systematic Entomology Laboratory for identification from Costa Rica, where they had been reared from sugarcane. These new records (from Mexico and Costa Rica) significantly broaden the known geographic range of B. graminea (Fig. 1).

At present, it is unknown whether the records from Costa Rica and Mexico represent a recent invasion of this species into Central America, an old, previously undetected invasion, or a host switch by native B. graminea populations onto cultivated sugarcane. The fact that B. graminea has been reared from corn (Zea mays Linnaeus: Poaceae) and sorghum suggests that it has the potential to become a widespread pest throughout the lowlands of northern South America and Central America where these crops are cultivated. However, it seems that adequate time for this scenario to come to fruition has elapsed without the potential result. The fact that *B. graminea* also has been recorded from Coix lacryma-jobi Linnaeus (Poaceae) and Setaria paniculifera Fournier (Poaceae), two widespread native grasses, suggests that it already may have a broad native distribution in the region and has switched over to cultivated plants opportunistically in certain parts of its range. Regardless, the potential of B. graminea to become a more widespread and economically important pest of sugarcane seems high in light of the information presented herein. Furthermore, we recommend that future survey work be conducted for this insect in sugarcane producing areas of northern Mexico and southeastern United States where B. graminea is not known to occur at present.

We acknowledge the following for assistance with logistics, access to sugar plantations, and/or collecting specimens: Mónica C. Vargas, Director, and Luis M. Rosado-Grajales, Campus Veracruz, Colegio de Postgraduados, Mexico; Alejandro Martínez and Ricardo García, Plan de Ayala Sugar Mill, Cd. Valles, San Luis Potosí; Juan Francisco Leal and José Reyes Hernandez, Mante Sugar Mill, Cd. Mante, Tamaulipas; Joel Hernández Sanchez and Hugo Valdez, Panuco Sugar Mill, Veracruz; Alberto Baez and Jorge Campos, Independencia Sugar Mill,

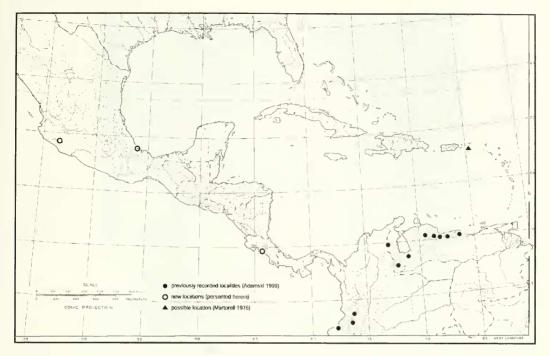


Fig. 1. Known distribution of *B. graminea*. Closed circles are previously reported locations (Adamski 1999); open circles are new locations (presented herein); triangle is possible location (Martorell 1976).

Independencia, Veracruz; and Leopoldo Montero, La Gloria Sugar Mill, La Gloria, Veracruz. We thank Pedro Esteban Diaz, Instituto Nacional de Ecologia, SEMARNAP, Mexico, for providing Adamski with a collecting permit. César Guillén Sánchez and Kenji Nishida, Universidad de Costa Rica, San Pedro, and Eugenie Phillips Rodriguez, Instituto Nacional de Biodiversidad, Santo Domingo, Heredia, Costa Rica, forwarded to us specimens of B. graminea from Costa Rica. Vitor Becker, Planaltina, Brazil, David Smith, Systematic Entomology Laboratory, USDA, Washington, DC, and an anonymous reviewer provided helpful comments on the manuscript.

LITERATURE CITED

- Adamski, D. 1999. Blastobasis graminea, new species (Lepidoptera: Gelechioidea: Coleophoridae: Blastobasinae), a stem borer of sugar cane in Colombia and Venezuela. Proceedings of the Entomological Society of Washington 101: 164–174.
- Box, H. E. 1953. List of sugar-cane insects: A synonymic catalogue of the sugar-cane insects and

mites of the world, and their insect parasites and predators, arranged systematically. Commonwealth Institute of Entomology, London, 100 pp.

- Cárdenas Duque, L. and Maria del Pilar Hernández. 1985. Barrenador de la caña azúcar en Colombia. Miscelanea, Sociedad Colombiana de Entomologia 1: 12–17.
- Guagliumi, P. 1962. Las Plagas de caña de azúcar en Venezuela. Ministerio de Agricultura y Cria. Maracay, Venezuela. Monografía no. 2.2 partes, 789 pp.
- Martorell, L. F. 1976. Annotated food plant catalogue of the insects of Puerto Rico. Agricultural Experiment Station, University of Puerto Rico, Department of Entomology, 303 pp.

David Adamski, John W. Brown, Systematic Entomology Laboratory, Agricultural Research Service, U.S. Department of Agriculture, c/o National Museum of Natural History, Washington, DC, 20560-0168, USA (e-mail: dadamski.sel.barc.usda.gov); Juan A. Villanueva-Jiménez, Colegio de Postgraduados, Campus Veracruz, Mexico; Manuel Méndez López, Organismos Benéficos para la Agricultura, Autlán, Mexico.